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ABSTRACT

Evaluation can be broadly defined as an organized review process for decision making involving the consideration of selected phenomena based on predetermined criteria. School health educators can use evaluation techniques to accomplish several goals. Evaluation and measurement of students' accomplishments assist in planning for student guidance. Selecting students for ability grouping or individualized instruction depends on evaluating the most effective learning method for each student. Other methods in which evaluation procedures can assist health educators are in maintaining individual and group standards through testing, motivating students, determining cognitive weaknesses, and in choosing the most effective teaching methods and facilities. Several evaluation techniques exist that can be used for effective evaluation, such as student feedback, comparison of teaching methods, unit review by peers or administrators, and reference materials. (FG)

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The Application of Evaluation and Measurement Techniques in School Health Education

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The Application of Evaluation and Measurement

Techniques in School Health Education

Effective evaluation in school health education can be an extremely difficult task to adequately and accurately accomplish. Numerous definitions of evaluation exist in the literature, as do purposes or reasons for conducting various evaluation activities. In addition, many evaluation designs which include selective measurement techniques can be utilized to complete the evaluation process. Evaluation may be broadly defined as an organized review process for decision-making involving the consideration of the worth of selected phenomena based on predetermined criteria.

Evaluation for the school health educator can serve several different functions. These functions might include to: (1) assist in the guidance of pupils; (2) select pupils; (3) maintain standards; (4) motivate pupils; (5) guide teaching; (6) furnish instructions to pupils; and (7) evaluate educational methods, facilities or procedures. Each of these evaluation functions can be applied within any classroom, whether it be the elementary school, the secondary school, or at the college level. Following is a brief discussion of the application of evaluation and measurement techniques in school health education.

I. To Assist in the Guidance of Pupils. Specifically within the area of health instruction, this function is of utmost importance. Consider the behavioral objective: the student in the eleventh grade health class will analyze the effects of drug abuse upon society

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by either presenting an oral, artistic, or written report of a particular length and scope. The behavioral objective is broad, and therefore, could be attained in many different ways by the students, with the assistance of various information sources such as journals, magazines, drug counselors, or various reading levels of health education text books.

In facilitating the objective attainment, the educator should utilize a measurement and evaluation process if students are to be judged successful in fulfilling the objectives. The health educator should guide the students, first, to understand the meaning of the objective, and later to establish personal relationship or meaning to the student. The health educator should be knowledgeable of the student's background and experiences, unique student needs and interests, and student drug abuse knowledges, attitudes, and behaviors in order to accurately evaluate. One source to locate some student background information might be the cumulative files. Additional techniques useful in determining student background information could be via the school grapevine, a question box, an autobiographical questionnaire, formal and informal student interviews, socio-grams or informal studies of behavior patterns. Other information needed might include the present student status of health interests, needs, knowledges, attitudes, and behavior gained via tests/checklists/questionnaires. With this additional information, the health educator can better facilitate learning, utilizing educational strategies such as mini-lectures, readings, learning activities, or whatever. Learning, thus, is based on pupil background and perceived capabilities, but provided utilizing a variety of learning mechanisms.

II. To Select Pupils. The function of selecting pupils for particular classes or groups within a classroom allowing for maximum learning is important. However, ability grouping is seldom practiced by school administrators for health education classes. Thus, in an effort to individualize instruction, it may become the health educator's task to group the students in various manners. An example of grouping might include the teacher assigning small groups for a presentation on a particular aspect of why people use drugs. In selecting the group structure, the health educator might have a secondary reason of utilizing the more productive students to motivate the less productive students in analyzing behavioral and attitudinal patterns. If utilized in a positive manner, peer pressure might lead to increased motivation for learning.

In the final analysis, the real purpose of ability grouping is to provide individualized instruction for students according to their present level of functioning. Different ability levels of learning packets can be developed for the area of drug abuse, for example. All students could view a particular film strip and participate in class discussion, but the health educator would provide differing levels of processing worksheets used in personally analyzing the information presented in the filmstrip. In addition, learning packets should provide for some activity choices, as well as listing specific required activities, in order to permit the students to select learning strategies of special interest. For example, some individuals can communicate better in different ways. Some people feel more at ease writing, whereas others communicate better orally, and some students communicate better through

artistic endeavors. Permitting students to select modes of communication may lead to increased learning rates. Lastly, individualized instruction while including many different learning activities, may place emphasis on a big final pressurized test. Instead, learning could be non-threatening, allowing for successes which can lead toward the continued development of a positive self-concept, effective communication/interaction skills, and realistic decision making processes, all of which are lifetime oriented.

III. To Maintain Standards. Evaluation procedures can assist in maintaining group and individual standards. The utilization of a pre-post test to measure specific drug knowledges obtained is one example questioned, though it might be a practice of using this technique solely for grading purposes. For example, if a student scores a 95 on the pre-test and a 96 on the post-test and another student scored a 75 on the pre-test and 82 on the post-test, who has really learned the most? One student improved only by 1 point, whereas the other student improved by 7 points. Testing, however, is just one measurement of learning and additional techniques to measure learning may be developed. Granted, these additional testing strategies do take time and energy to scientifically develop. However, if tests are required, the test scores should be used as an indication of knowledge as measured by a particular test, at a particular point in time, for only part of the student's total grade for the health education course. In this manner, knowledge comparisons can be made between all students enrolled within the health education course to determine various levels of health knowledge.

Standards, too, must be established in regard to criteria for the fulfillment of the objectives specifically, and thus should be fully understood by the student. An objective might be: list three reasons why people use and abuse drugs. For the measurement process student's work products should be compared to the actual criteria, and if a student indicated three reasons in their own manner of communication, credit for objective fulfillment should be given. Standards thus can be maintained through the application of specific criteria, both on the individual and the group level. Finally, all students should be knowledgeable of individual progress in the fulfillment of the selected objectives continuously.

IV. To Motivate Pupils. Motivation is another function of evaluation. For example, at the beginning of the drug unit, a drug interest survey or questionnaire may be administered. Students then may have an opportunity to express their real concerns about drug use and abuse and are not biased by their peers. Another approach could be the question box. A final example of determining the real drug interests of the students could be accomplished by the use of the DEAR ABBY letter. The health educator would provide class time for the questions to be answered, either in the form of a question-answer session or by integrating the question into the teaching/learning mini-lecture class time. In this manner, relevant information can be provided to the students, and motivation for learning, something with an immediate application, is the end result. Motivation, then, can occur easier in the classroom if the students can see and relate to the specific chosen objectives and can learn in a non-threatening and trusting atmosphere.

V. To Guide Teaching and Furnish Instructions to Pupils. Evaluation strategies can assist in guiding teaching/learning within the classroom. Specifically in the area of health instruction, a standardized knowledge test can be administered to determine the student's knowledge in relationship to particular designed behavioral objectives. From the results of the analysis of the data, specific cognitive weaknesses could be determined that may be included within the unit of instruction at the appropriate time. In addition, cognitive strengths may be de-emphasized, resulting in efficient utilization of limited time available for health instruction. An additional methodology for guiding teaching/learning might include individualized learning packets or contracts.

VI. To Evaluate Educational Methods, Facilities, or Procedures. Finally, evaluation strategies are important for the evaluation of educational methods, facilities, and procedures. For example, in attaining the student objective, the student in the eleventh grade classroom will analyze at least seven effects of drugs upon society. Many factors must be considered in the learning process. Curriculum design techniques influence the objective, the objective affects the content, the objective influences the methodology utilized, and the objective affects the evaluation procedure. After completion of the students' objective attainments, the health educator should determine if a revised objective would better meet the needs and interests of the students.

Also, methods, facilities, and procedures can be evaluated while considering student responses received to the following questions: Is

the health content current?; Are methodologies utilized the most effective and efficient for learning?; Did evaluation devices accurately measure the learning potential or level of the student?; and, Was the precise predetermined learning level correct? One non-specific technique used to evaluate these received responses could be an open-ended sentence instrument requesting such positive information as:

1. Three reasons why people abuse drugs are: _____

_____

2. The effects of drug abuse on society are: _____

_____

3. The most important thing I learned in this unit was: _____

_____

4. The least important thing stressed in this unit was: _____

_____

5. This unit could be improved by: _____

_____

Students then may have an opportunity to suggest ideas related to course improvement.

Additional strategies to evaluate effectiveness might include: (1) a comparison in methodologies, i.e., lecture versus student centers for learning; (2) a unit review conducted by peer health educators, and (3) a unit review by an appropriate administrator. Also, various checklists and score cards are available for the evaluation of films and resources, teaching/learning strategies, or text books. Lastly, the

health educator should review the available literature to gain additional knowledges and proven strategies relevant to the content area as well as to the needs, interests, knowledges, attitudes, and behavioral patterns of the student population.

Evaluation procedures and techniques in the final analysis, are a vital part of the work of the school health educator. As an organized review process, evaluation may serve the following functions: (1) to assist in the guidance of pupils; (2) to select pupils; (3) to maintain standards; (4) to motivate pupils; (5) to guide teaching; (6) to furnish instruction to pupils, and (7) to evaluate educational methods, facilities or procedures.

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